IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application of

Gupta	Group Art Unit 3624
Serial No. 09/505,509	Examiner Daniel S. Felten
Filed February 17, 2000	Confirmation No. 6746

For A DISTRIBUTED BID PROCESSING METHOD FOR OPEN-CRY AND DESCENDING PRICE AUCTIONS

Commissioner for Patents
P..O. Box 1450
Alexandria, Virginia 22313-1450

APPELLANTS' BRIEF UNDER 37 C.F.R. § 41.37

The undersigned submits this Appellants' Brief, which is filed herewith in triplicate, in furtherance of the Notice of Appeal, filed March 11, 2005.

This brief contains these items under the following headings and in the order set forth below, as required under 37 C.F.R. § 41.37:

I. REAL PARTY IN INTEREST

II. RELATED APPEALS AND INTERFERENCES

III. STATUS OF CLAIMS

IV. STATUS OF AMENDMENTS

V. SUMMARY OF CLAIMED SUBJECT MATTER

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

VII. ARGUMENTS

- ☐ ARGUMENT VIIA. REJECTIONS UNDER 35 U.S.C. §112, FIRST PARAGRAPH
- ☐ ARGUMENT VIIB. REJECTIONS UNDER 35 U.S.C. §112, SECOND

I. REAL PARTY IN INTEREST

The real party in interest in the appeal is:

- ☐ the party named in the caption of this brief.
- ☑ the following party:

  International Business Machines Corporation of Armonk, New York.

II. Related Appeals and Interferences

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal:

☑ there are no such appeals or interferences.

☐ these are as follows:

III. STATUS OF CLAIMS

The status of the claims in this application is as follows:

A. Total number of claims in Application

The claims in the application are: Claims 1-11, totaling 11 claims

B. Status of all the claims:

1. Claims cancelled: None
2. Claims withdrawn from consideration but not cancelled: None
3. Claims pending: Claims 1-11
4. Claims allowed: None
5. Claims rejected: Claims 1-11
6. Claims objected to: None

C. Claims on Appeal.

The claims on appeal are: Claims 1-11

IV. STATUS OF AMENDMENTS

The status of amendments filed subsequent to the final rejection is as follows: There are no after-final amendments.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The claimed invention, defined in independent claims 1, 3, 6, and 9, is directed to applications of open-cry (claims 1, 3, and 6) and descending price (claim 9) auctions of single or multiple copies of indivisible goods. (Specification at page 3, lines 3-5) In general, at open-cry auctions, also known as "English auctions," a buyer can hear bids submitted by rival buyers and has a limited time to respond with higher counter-bids. (Specification at page 2, lines 14-19). This is the subject mater of independent claims 1, 3, and 6. In descending price auctions, also known as "Dutch auctions," the auctioneer starts with a high asking price, then gradually decreases the asking price until at least one buyer emerges with a bid. In such an auction, the seller can continue lowering his or her bid to maintain a stream of buyers as long as the inventory lasts. The seller can also control the rate at which inventory is depleted by controlling the rate at which the bid is lowered. (Specification at page 3, lines 13-14) Claim 9 specifies a descending auction. Thus, where the bid increment is positive in an open-cry auction, the bid increment is negative in a descending price auction. Otherwise, the two types of auctions embody similar ideas. (Specification at page 11, lines 18-23) Either type of auction may conventionally be conducted live or online. (Specification at page 3, lines 24-26)

In the current state of the art of auction procedure, every time any node (i.e., server) processes a set of bids, it determines the global winners; i.e., it determines the winning bids among all the bids received thus far. These winning bids are selected based on pre-specified rules. (Specification at page 6, lines 21-24)

The claimed invention provides computer implemented distributed bid processing methods wherein bids for open-cry or descending price auctions may be processed, and loser bids filtered out in a decentralized manner at an early stage of processing, using multiple nodes with one or more servers (processors) at each node. (Specification at page 6, lines 9-19; See also processors $10_{1\text{-}n}$ in Figure 1) The determination of loser bids is thus important in efficiently identifying the candidate winning bids, and the division of the processing into two parts is also important in efficiently arriving at a current set of

winners. (Specification at page 7, lines 7-10)

With respect to claim 1, Figure 1 shows the output of potential winner bids from each processor $10_{1\text{-}n}$.

The claimed invention employs a Current Local Winner (CLW) determination method to separate loser bids from potentially winning bids and a Current Global Winner (CGW) determination method to determine winning bids. The terms CLW and CGW are defined and discussed at great length in the Specification. (*See* Specification at page 6, line 24 – page 13, line 22) The claimed invention of claims 3, 6, and 9, employs CLW determination methods to determine a set of potentially winning bids so that loser bids may be filtered out locally and not considered in the CGW process. A potential winner from a CLW determination may be processed again by a CLW determination process or may be finally processed in the CGW determination process. Benefits of the filtering function thus performed by the CLW process include, among other things, maintaining the efficiency of the CGW process by preventing it from becoming loaded by heavy traffic attributable to the handling of loser bids. (Specification at page 7, lines 2-10) Distinct CLW and CGW determination methods are provided for open-cry auctions and descending price auctions. (Specification at page 12, line 12, and at page 13, line 1)

There are two CLW determination methods which may be applied to open-cry auctions according to the claimed invention, as defined in independent claims 3 and 6. In the first CLW determination method for open-cry auctions (CLW 1), shown in Figure 3, a new bid(v,q) is input at 301, and a Segregation Filter is used in decision block 302. This filter process considers a bid(v,q), where v denotes the price per unit and q denotes the quantity desired. It checks to see if this bid ranks in the top $\lfloor N/q \rfloor$ bids (in terms of price/unit bid value) among all the bids asking for quantity q whose information is available to this process, $\lfloor x \rfloor$ stands for the greatest integer less than or equal to x, while N denotes the number of copies of a single item on sale. In decision block 302, a determination is made as to whether the new bid is a modification and the original bid is in the top $\lfloor N/q \rfloor$ bids asking for quantity q. If so, the value v of the original bid is updated in function block 303. If not, then to decide whether a bid is a winner or a loser, the

process takes this bid along with the set of $\lfloor N/q \rfloor$ bids that have been processed 304 and determines a new set of top $\lfloor N/q \rfloor$ bids in function block 305. *A determination is then made in decision block 306 to determine if bid(v,q) is in the top $\lfloor N/q \rfloor$ bids. If it is not, it is deemed a loser bid, as it can never be a winning bid, and notification is sent to the bidder in function block 307.* If it is in the top $\lfloor N/q \rfloor$ bids, it is declared a candidate bid and a check is made to see if another bid has dropped from the list of top $\lfloor N/q \rfloor$ bids and, if so, then that bid is considered a loser bid and notification is sent to that bidder in function block 308. *The candidate bid is held for time, τ, in function block 309. If by time τ, through an arrival of another bid, a candidate bid loses its position among the top $\lfloor N/q \rfloor$ highest bids, it is considered a loser bid.* Otherwise it is considered a winner candidate from this process and is made accessible for further processing. (Specification at page 8, line 24 – page 9, line 21)

In the second CLW determination method for open-cry auctions (CLW2), as defined in independent claim 6 and shown in Figure 4, a new bid(v,q) is input at 401 and in decision block 402, a determination is made as to whether the new bid is a modification and the original bid is currently a winner. As in the previous methods, if the bid under consideration is a modification and the original bid is currently a winning bid among the bids, whose information is available to this method, then the processing simply amounts to updating the bid value v in function block 403, and notification is sent to the bidder in function block 404. This process uses a Buffer Filter. This filter process considers a set of bids 405, whose information is available to this process, unsegregated by quantity and uses a set of pre-specified auction rules identical to the CGW determination method in every respect except that it selects winners for auctioning $N+x$ copies of the item (the CGW method discussed below considers N copies) on sale in function block 406. *A determination is made in decision block 407 as to whether the bid(v,q) is a winner. These winner bids are called candidate winner bids and can be processed using other methods in function block 408. The losers are referred to as loser bids, and notification is sent to the bidders in function block 404.* (Specification at page 10, lines 5-22)

In the CLW determination method for descending price auctions (CLW3) as defined in independentclaim 9 and shown in Figure 7, begins by taking a bid (q) for processing, where q is the quantity desired at going price p, at input 701. A determination is made in decision block 702 as to whether the bid is in the first $\lfloor R/q \rfloor$ bids, asking for quantity q at price p. *If the bid is in the first* $\lfloor R/q \rfloor$ *bids (asking for quantity* q *at the going price* p*) processed by the method, then the bid is a candidate winner bid; otherwise, it is a loser.* A candidate winner bid is available for further processing at function block 703. *In the case of a loser bid, notification is sent to the bidder at function block 704.* Each bid that is processed by the method either carries a time stamp of arrival or is given at the node while processing. It is assumed that if the time stamp already exists on the bid, then it must be greater than or equal to the time stamp of any bid (asking for quantity q at going price p) that has been processed by the method in the past. The main algorithm executed at each node is same as in the open-cry auction case. (Specification at page 13, lines 1-22)

Independent claims 1, 3, 6 and 9 require using a current global winner determination method to determine from the candidate winning bids from each of the nodes a current set of winners. An exemplary CGW determination process for open-cry auctions (CGW1), as employed in Claims 1, 3 and 6 and shown in Figure 2, *considers bids which have not been declared losers in the CLW1 or CLW2 process.* Using pre-specified auction bidding rules, CGW1 decides the set of current winner bids for auctioning N copies of a single item. A new bid(v,q) input at 201 is examined in decision block 202 to determine if the new bid is a modification and the original bid is currently a winner. *If not, then to decide whether a bid is a winner or a loser, the process takes this bid along with the set of all bids that have been processed 203 (declared either winning or losing in the auction in the past) and determines a new set of winners in function block 204 (using the auction bidding rules, defined below).* Note that if the bid under consideration were a modification of a bid (let us call it the parent bid) submitted by the bidder in the past and the parent bid is currently a winning bid as determined in decision block 202, then the processing simply involves updating the bid value of the parent bid to

the bid value v of the bid under consideration in function block 205. Notification is sent to the bidder of bid(v,q) in function block 206. *After the new set of winners is computed in function block 204, a determination is made in decision block 207 as to whether bid(v,q) is a winner or a loser. If a loser, then notification is sent to the bidder of bid(v,q) in function block 206.* If a winner, a message is sent to the bidder apprising him of this status in function block 208. (Specification at page 7, line 11 – page 8, line 2)

The CGW determination process for descending price auctions (CGW2), as employed in independent claim 9 and shown in Figure 6, begins by taking a bid (q) for processing, where q is the quantity desired at going price p, input at 601. The currently remaining quantity R on auction are obtained at 602. While the node, that is running this method, reads the available quantity on auction, no other process on any node can modify this value. A determination is made in decision block 603 as to whether $q<R$ or $q>R$ and the bidder is ready to accept a partial quantity. If $q \leq R$ or $q>R$ but the bidder is ready to accept partial quantity, then the method modifies the value of R to max (0, R-q) in function block 604. Also the method may send a notification to the bidder that his bid is accepted, etc. *On the other hand if $q>R$ and the bidder is not ready to accept partial quantity, then a notification may be sent apprising him or her of this situation in function block 605.*

VI. Grounds of Rejection to be Reviewed on Appeal

The sole issue presented in this Appeal is whether Claims 1-11 are obvious over U.S. Patent No. 6,449,601 to Friedland et al.

ARGUMENT VIIA. REJECTIONS UNDER 35 U.S.C. §112, FIRST PARAGRAPH

There are no rejections under 35 U.S.C. §112, first paragraph.

ARGUMENT VIIB. REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH

There are no rejections under 35 U.S.C. §112, second paragraph.

ARGUMENT VIIC. REJECTIONS UNDER 35 U.S.C. §102

There are no rejections under 35 U.S.C. §102

ARGUMENT VIID. REJECTIONS UNDER 35 U.S.C. §103

Claims 1-11 have been rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent 6,449,601 to Friedland et al.[1] In short, the Examiner is attempting to reason that the Friedland reference shows something it does not show under the guise that this is a "broad" reading of the reference. That is, as will be discussed in detail below, the Friedland reference does not show a distributed processing auction as is contemplated by each of the independent claims, where there is both a computer implemented "current local winner" determination and a computer implemented "global winner determination" made based on the candidate winning bids at each of the nodes. Rather, Friedland shows a single server system. The claimed invention, defined by each of the independent claims, requires a distributed processing system with a plurality of nodes and that a two step methodology ending in a determining a global winner step which considers winning bids from each of the nodes. By definition, Friedland does not have the plurality of nodes from which to determine the global winner.

The claimed invention is in an area of esoteric technology, and the Examiner admits that the reference on which rejection is based does not squarely address all of the substance of the claims of the claimed invention. Applicants thus respectfully suggest that the Examiner has engaged in impermissible hindsight as well as an improper assertion of technical fact in an area of esoteric technology without appropriate support by citation of a reference work. (*See* M.P.E.P. § 2144.03, citing *In re Ahlert*, 424 F.2d 1088, 1091, 165 U.S.P.Q. 418, 422-21 (CCPA 1970)). The Examiner has also ignored definitions of claim terms expressly set forth in detail in the Specification. (*See* M.P.E.P. § 2111.01, citing *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 U.S.C.P.2d 1065, 1069 (Fed. Cir. 1999) ("Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim.")).

---

[1] This rejection was explicitly stated in the office action mailed June 2, 2004, but was not explicitly repeated in the office action mailed December 15, 2004. As it is the only rejection specifically lodged in the case, this appeal is from that rejection.

Claim 1. In rejecting Claim 1, the Examiner has both disagreed with the applicant's position that Friedland doesn't show a distributed system, and has taken the position that no patentable weight should be given to the recitation of a distributed system since it appears in the claim preamble.

First, Friedland does not show a distributed processing system, and the Examiner is clearly incorrect in his assessment. With reference to Figure 3 of Friedland, it can be seen that the system is built around a single server. Figure 3 of the disclosure of Friedland et al., shows a system in which a conventional live auction may include remote bidders 316-319 whose participation in the live auction is mediated by a human operator 306 and using a centralized auction server 312. (*See* Friedland et al., column 7, line 61 – column 8, line 50) The Examiner also previously relied on the abstract of Friedland et al. for support; however, the abstract of Friedland et al. teaches a system in which remote bidders may participate in a live auction through a human agent and using a centralized processor:

> A method for distributing a live auction over the Internet to remote bidders. A human proxy attends the live auction in order to monitor the auction and compose status updates that are distributed to remote bidders via the Internet in real time to allow the remote bidders to follow the auction. Remote bidders may place bids for items that are transmitted via the Internet to the human proxy, who may then submit the bids to the auctioneer, components that facilitate distribution of the live auction over the Internet include: an auction console, an auction sever, collector/redistributor nodes, and client programs.

Thus, Friedland does not show a distributed system. Further, it would be improper not to consider the requirement of a distributed system as part of the independent claims 1, 3, 6 and 9 since each of the claims specifically refer back to the nodes referenced in the preamble. That is, the preamble requires one or more servers at a plurality of nodes in a distributed processing system, and the bodies of the claims 1, 3, 6 and 9 require determining current local winners at each of the nodes and determining current global winners from the candidate winning bids at each of the nodes.

The Examiner has also erroneously equated the teaching in Friedland of collector/re-distributor nodes being hierarchically interconnected to serve to more efficiently collect and filter bids from a large number of remote bidders and pass potentially winning bids into the auction server, and serve to efficient broadcast status messages concerning the liver auction received from the auction server to a large number of remote client programs to "using one or more servers at a plurality of nodes in a distributed processing system". While the abstract of Friedland et al. teaches "collector/restributor nodes," it does not teach <u>processing of bids across multiple nodes,</u> as does Claim 1 of the claimed invention. Moreover, the reliance by Friedland et al. on a human operator means that the teaching of Friedland et al. does not lead to a fully "computer implemented" auction as provided by claimed by Claim 1. The disclosure of Friedland et al. teaches a *computer assisted* rather than a *computer implemented* auction.

The Examiner has also found, in rejecting Claim 1, that Friedland teaches "[u]sing a *computer implemented* local winner determination method at each of the nodes to identify loser bids and candidate winning bids" and "[u]sing a computer implemented current global winner method to determine the candidate winning bids from each of notes a current set of winners." (Office Action of 6/2/04 at 3) (emphasis in the original) As noted above, the reliance in the disclosure of Friedland et al. on a human operator means that Friedland et al. teach a *computer assisted* rather than a *computer implemented* auction.

In addition, the Examiner has failed to recognize the thorough explanations of the term "current local winner determination method" (Claim 1, line 4) and "current global winner determination method" (Claim 1, line 6), which take up the major part of the Specification and which may be found in the Specification at page 6, line 24 – page 13, line 22 and at Figures 2, 3, 4, 5, 6, and 7. Quite the contrary. The Examiner has taken the position that the "broadest reasonable interpretation" would allow him to properly construe Friedland, which does not have a distributed system as having a distributed system, or to construe Friedland, which does not determine local winners and does not determine global winners from the set of local winners as performing these functions.

These is a completely incorrect view of what one of ordinary skill in the art would determine the invention to be from the claims and specification. That is, it assumes away the invention itself. "Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim." (M.P.E.P. § 2111.01, citing *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 U.S.C.P.2d 1065, 1069 (Fed. Cir. 1999)). As Friedland et al. do not teach a "current local winner determination method" or a "current global winner determination method" as claimed by the claimed invention (Claim 1, lines 4, 6), the disclosure of Friedland et al. cannot be said to suggest those features. Furthermore, the cited portion of the disclosure of Friedland et al. does not teach a "local winner determination method" (Office Action of 6/2/4 at 3) as found by the Examiner but instead provides:

> Each remote bidder interacts with a client program running on a remote computer. The client program allows the remote bidder to log into a *distributed live auction* ("DLA") system in order to register as a remote bidder for a particular live auction. *At the time that the live auction is conducted, the remote bidder interacts with the client program on the remote computer in order to follow the course of the real-time, live auction, and to submit bids. The remote bidder receives status updates concerning the bidding, lot state, and lot sequencing from the live auction via a graphical user interface provided on the remote computer by the client program, and may interact with the graphical user interface in order to submit bids for a particular lot.*
>
> *The collector/redistributor nodes are heirarchically interconnected and serve to efficently collect and filter bids from a large number of remote bidders and pass potentially winning bids onto the auction server, and also serve to efficiently broadcast status messages concerning the live auction received from the auction server to a large number of remote client programs running on remote computers.*
>
> *The auction server is a centralized connection point that interconnects collector/redistributor nodes, on-site auction consoles, and a database that*

> *computationally mirrors the states of one or more live auctions and that stores detailed information about both on-going and upcoming auctions.* The auction server is the focal point for collecting bids from remote bidders and for distributing status information about one or more concurrent live auctions to remote bidders. Moreover, the auction server manages extensive information about current and future auctions, including detailed inventory lists and lot assignments. The auction server is directly connected to root-level collector/redistributor nodes and is also connected, via the Internet, to one or more auction consoles.
>
> The auction console is a program running on a computer, often a laptop computer, that interacts with a human proxy in the audience of the live auction. The human proxy is notified of bids from remote bidders via the auction console program and may submit bids to the auctioneer during the auction process. The human proxy monitors the auction, reports changes in the state, such as successful bids or sales, as well as changes in the lot sequence or assignments via the auction console program to the auction server.
>
> The DLA solves the problems associated with distributing a real-time, live auction using a combination of technologies, communications protocols, software programs, human proxies, centralized databases, and auction management methodologies. In particular, the human proxy is able to monitor and interact with the auction process in real-time, as well as monitor and report changes in lot sequences and assignments. The DLA architecture provides an efficient extremely fast medium for distributing status information about an auction to a large number of remote bidders and for collecting bids from remote bidders and presenting them to the auctioneer. The present invention thus provides a method for bringing the excitement and time efficiency of a live auction to remote bidders over the Internet.

(Friedland et al., column 3, lines 10-67) (emphasis added) Thus, the portion of the disclosure of Friedland et al. cited in support of rejection does not teach the "local winner

determination method" (Office Action at 6/2/4 at 3) for which it has been cited. In addition, the "distributed live auction (DLA)" which is taught by Friedland et al. does not involve distributed processing as claimed by the claimed invention but instead involves a system in which there is distributed participation by remote bidders in an auction for which processing is centralized. The "collector/redistributor nodes" taught by Friedland et al. do not perform auction processing but instead "collect and filter bids from a large number of remote bidders and pass potentially winning bids onto the auction server." The passage cited by the Examiner in support of rejection thus serves to underscore the fact that Friedland et al. teach a system in which, unlike Claim 1, a conventional live auction may include remote bidders whose participation in the live auction is mediated by a human operator and using a centralized auction server.

The Examiner has recognized that "Friedland fails to identify loser bids." (Office Action 6/2/4 at 3) Recognizing the deficiency of Friedland et al. in this regard, the Examiner has relied on argument to assert that "the determination of winning bids would also include the determination of loser bids within the filtering process." (*Id.*) The portion of the disclosure of Friedland et al. cited in support of the rejection, which is set forth in block quotes in the discussion above, does not include any reference to "loser bids" or an equivalent term. As a result, the reference does not support the point in support of which it has been offered. Applicants thus respectfully suggest that the Examiner's comments in this regard constitute impermissible hindsight as well as an improper assertion of technical fact in an area of esoteric technology without support by citation of any reference work. (*See* M.P.E.P. § 2144.03, citing *In re Ahlert*, 424 F.2d 1088, 1091, 165 U.S.P.Q. 418, 422-21 (CCPA 1970)).

The claimed invention determines loser bids in a "current local winner determination" (not taught by Friedland et al.) in order to withhold loser bids from processing in a "current global winner determination" (not taught by Friedland et al.), all of which is integral to the distributed bid processing method claimed by Claim 1 and wholly absent from the disclosure of Friedland et al.

Applicants respectfully submit that Claim 1 of the claimed invention is not

suggested by the disclosure of Friedland et al.

With regard to independent claims 3, 6, and 9 (which are distinguished from Friedland for the same reasons noted above for claim 1), the Examiner has incorrectly found the terms "bid(v,q)" and "[N/q] bids" to be suggested by the disclosure of Friedland et al. The significance and meaning of the terms "bid(v,q)" and "[N/q] bids" is defined in the express language of Claims 3, 6, and 9:

> receiving a new bid(v,q) at a node, where v denotes the price per unit and q denotes the quantity desired; and
>
> checking to see if the new bid ranks in the top $\lfloor N/q \rfloor$ bids, in terms of price/unit bid value, amongst all the bids asking for quantity q whose information is available to this process, where N is a number of copies of a single item on sale.

The claim language is not suggested by the portions of the disclosure of Friedland et al. cited by the Examiner in support of rejection, which simply speak generically of "bids."

The Examiner has further found the "a current global winner determination method to determine from the candidate winning bids of each of the nodes a current set of winners" is suggested by the disclosure of Friedland et al. (Office Action 6/2/4 at 4) As discussed above, however, the term "current global winner" is expressly defined in the Applicants' Specification and does not as such appear in the disclosure of Friedland et al. In addition, and as discussed above, the "nodes" taught by Friedland et al. are nodes for remote bidders to participate in a live auction and not nodes for distributed processing as in the claimed invention.

ARGUMENT VIIE. REJECTION OTHER THAN 35 U.S.C. §§102, 103 AND 112

There are no rejections other than under 35 U.S.C. §§ 102, 103, and 112.

VIII. CLAIMS APPENDIX

The text of the claims involved in this Appeal are:

1. A distributed method for processing auction traffic using one or more servers at a plurality of nodes in a distributed processing system comprising the steps of:

using a computer implemented current local winner determination method at each of the nodes to identify loser bids and candidate winning bids; and

using a computer implemented current global winner determination method to determine from the candidate winning bids from each of the nodes a current set of winners.

2. The method of claim 1, wherein the auction is an open-cry auction.

3. A distributed method for processing open-cry auction traffic using one or more servers at a plurality of nodes in a distributed processing system comprising the steps of:

using a current local winner determination method at each of the nodes to identify loser bids and candidate winning bids, wherein the current local winner determination method comprises the steps of:

(a) receiving a new bid(v,q) at a node, where v denotes the price per unit and q denotes the quantity desired;

(b) checking to see if the new bid ranks in the top $\lfloor N/q \rfloor$ bids, in terms of price/unit bid value, amongst all the bids asking for quantity q whose information is available to this process, where N is a number of copies of a single item on sale and $\lfloor x \rfloor$ stands for the greatest integer less than or equal to x;

(c) taking the new bid along with the set of $\lfloor N/q \rfloor$ bids that have been processed and determining a new set of top $\lfloor N/q \rfloor$ bids;

(d) determining if bid(v,q) is in the top $\lfloor N/q \rfloor$ bids and, if it is not, declaring it a loser bid, but if so, declaring it a candidate bid; and

using a current global winner determination method to determine from the candidate winning bids from each of the nodes a current set of winners.

4. The method of claim 3, further comprising the steps of:

holding the candidate bid at the node for a time, τ; and

if by time τ, through an arrival of another bid, a candidate bid loses its position amongst the top $\lfloor N/q \rfloor$ highest bids, declaring the bid a loser bid;

otherwise, declaring the bid a winner candidate and making the bid accessible for further processing by the current global winner determination method.

5. The method of claim 4, wherein the current global winner determination method comprises the steps of:

receiving new candidate winning bid from a node bid(v,q);

taking the candidate winning bid along with the set of all bids that have been processed and determining a new set of winners;

determining whether the new candidate bid(v,q) is a winner or a loser; and

notifying the bidder of bid(v,q) as to whether they are a winner or loser.

6. A distributed method for processing open-cry auction traffic using one or more servers at a plurality of nodes in a distributed processing system comprising the steps of:

using a current local winner determination method at each of the nodes to identify loser bids and candidate winning bids, wherein the current local winner determination method comprises the steps of:

(a) receiving a new bid(v,q) at a node, where v denotes the price per unit and q denotes the quantity desired;

(b) considering a set of bids using a set of pre-specified auction rules and selecting winners for auctioning $N+x$ copies of the item on sale; and

(c) determinating whether the bid(v,q) is a candidate winner bid; and

using a current global winner determination method to determine from the

candidate winning bids from each of the nodes a current set of winners.

7. The method of claim 6, wherein the current global winner determination method comprises the steps of:

receiving new candidate winning bid from a node bid(v,q);

taking the candidate winning bid along with the set of all bids that have been processed and determining a new set of winners;

determining whether the new candidate bid(v,q) is a winner or a loser; and

notifying the bidder of bid(v,q) as to whether they are a winner or loser.

8. The method of claim 1, wherein the auction is a descending auction.

9. A distributed method for processing descending auction traffic using one or more servers at a plurality of nodes in a distributed processing system comprising the steps of:

using a current local winner determination method at each of the nodes to identify loser bids and candidate winning bids, wherein the current local winner determination method comprises the steps of:

(a) receiving a bid (q) for processing, where q is the quantity desired at going price p;

(b) determinating whether the bid is in the first $\lfloor R/q \rfloor$ bids, asking for quantity q at price p, where $\lfloor x \rfloor$ stands for the greatest integer less than or equal to x and R is a currently remaining quantity on auction;

(c) if the bid is in the first $\lfloor R/q \rfloor$ bids, asking for quantity q at the going price p, then declaring the bid a candidate winner bid; and

(d) making the candidate winner bid available for further processing by the current global winner determination method; and

using a current global winner determination method to determine from the candidate winning bids from each of the nodes a current set of winners.

10. The method of claim 9, further comprising the steps of:

giving bids processed by the method a time stamp of arrival; and

determining whether the time stamp, if it exists on the bid, is greater than or equal to the time stamp of any bid, asking for quantity q at going price p, that has been processed by the method in the past.

11. The method of claim 1, wherein bidders submit multi-item bids and the bids may be indivisible.

IX. Evidence Appendix

No evidence was submitted in this case under 37 C.F.R. 1.130, 1.131, or 1.132, and no evidence was entered separately by the Examiner.

X. RELATED PROCEEDINGS APPENDIX

No decisions have been rendered in any court or by the Board in a related appeal or interference.

Respectfully submitted,

Michael E. Whitham
Registration No.32,635

Whitham, Curtis & Christofferson, P.C.
11491 Sunset Hills Road, Suite 340
Reston, VA 20190
Tel. (703) 787-9400
Fax. (703) 787-7557

Customer No. 30743

AF/3624

TRANSMITTAL OF APPEAL BRIEF (~~Large~~ Entity)	Docket No. 00280615AA

OIPE JC174
MAY 04 2005
PATENT & TRADEMARK OFFICE

In Re Application Of: **Gupta**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/505,509	2/17/00	D.S. Felten	30743	3624	6746

Invention: **A Distributed Bid Processing Method for Open-Cry and Descending Price Auctions**

COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on **March 11, 2005**

The fee for filing this Appeal Brief is: **$500.00**

☐ A check in the amount of the fee is enclosed.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **09-0441**

☐ Payment by credit card. Form PTO-2038 is attached.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

Signature

Dated: **May 4, 2005**

Michael E. Whitham
Reg. No. 32,635

Whitham, Curtis & Christofferson, PC
11491 Sunset Hills Road - #340
Reston, VA 20190
703/787-9400
Customer No. 30743

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on

_______________.
(Date)

Signature of Person Mailing Correspondence

Typed or Printed Name of Person Mailing Correspondence

cc: